jotblk ~~~~~

Forth BLOCKS / / on the Web

April 25, 2025

Brad Nelson

64

Motivation

- \* I use a bunch of different laptops
- \* I often have Forth related ideas
- $^{st}$  Too many options overwhelm me
- \* I like blocks

65

Blocks on the Web

- \* I've done this before, RainbowForth 2008
- \* And with uEforth on the Web -- AND Forgot!
- \* The first Forth I really used was Pygmy Forth, and the blocks stuck...

66

## Implementation

- \* AppEngine
  - Google's Cloud Turnkey option
  - DataStore API (Now Firebase)
  - Mostly just a Python venv now
- \* Flask
  - Micro Web framework
- \* JavaScript
  - Render to a canvas
  - Stretch monospace font to fit 64x16+1

67

## Block Storage

- \* Types of Requests:
  - READ start <= i < end blocks
  - WRITE a block
- \* Keep 16,000 Blocks in memory
- \* Keep flags: DIRTY, LOADED
- \* Load blocks when first seen
  - Chunks of 64 blocks
- \* Save blocks when they change
  - Check every 3 seconds

68

## For Whom?

- \* Blown lots of worry about making blocks work for the world
- \* Focus on me as the customer
- \* Authenticate somehow...
- \* Worry about generalizing later

69

Editor \_ \_ \_ \_ \_ \* Arrows to move \* QWERTY to type \* PgUp / PgDn to move blocks \* No shadow blocks \* JavaScript, baked in \* Insert/Delete to 2 spaces \* Stretch to fill whole window \* colorForth inspired Cut/Copy/Paste \* Show status + screen \* Autosave 70 What about Forth? \* I want one, maybe will use uEforth \* But the point was to jot other ideas - Add a colorForth mode? - Load block as JavaScript? - Put the parser outside the Forth VM? OR the dictionary? - Decompose uEforth core differently? PARSE CONVERT CREATE FIND EVAL1 TIB #TIB >IN CURRENT CONTEXT H \* Will have to jot some notes... 71 QUESTIONS? Thank you! 72